Notice of Allowability	Application No.	Applicant(s)	
	10/614,954	HOHN ET AL.	
	Examiner	Art Unit	
	Medina A. Ibrahim	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment of 05/09/05*.

2. ☒ The allowed claim(s) is/are *1-5*.

3. ☒ The drawings filed on *07 July 2003* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ___.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gregory Warren on 06/25/05.

The application has been amended as follows:

In The Title:

The title has been replaced with the following:

--- ISOLATED NUCLEIC ACIDS ENCODING TRICHOTHECENE 3-0-ACETYLTRANSFERASES ----.

In The Abstract:

The abstract has been replaced with the following:

---- The present invention discloses isolated polynucleotides encoding polypeptides having trichothecene 3-0-acetyltransferase activity, recombinant vectors and host cell comprising said polynucleotides-----.

In The claims:

In claims 3-5, "gene" has been replaced with ---DNA----.

Reasons for allowance

The following is an examiner's statement of reasons for allowance: the prior art does not teach or reasonably suggest a nucleotide sequence that is 100% identical to

SEQ ID NO: 5 or a nucleotide sequence encoding SEQ ID NO: 6. The closest prior art is Kimura et al (J. Biol. Chem. (1998), 273 (3): 1654-1661, Applicant's IDS) who teach a nucleotide sequence having 99% sequence identity with Applicant's SEQ ID NO: 5. See attached sequence alignment results (Exhibit A/B) between SEQ ID NO: 5/6 and the prior art sequences.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina A. Ibrahim whose telephone number is (571) 272-0797. The Examiner can normally be reached Monday -Thursday from 8:00AM to 5:30PM and every other Friday from 9:00AM to 5:00 PM. Before and after final responses should be directed to fax nos. (703) 872-9306 and (703) 872-9307, respectively.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. Amy Nelson, can be reached at (571) 272-0804.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

6/25/05
Mai

MEDINA A. IBRAHIM
PATENT EXAMINER
Medina A. Ibrahim
1638

Exhibit A

06 May 2005

Alignment Results

Alignment: Global DNA alignment against reference molecule
Parameters: Scoring matrix: Linear (Mismatch 2, OpenGap 4, ExtGap 1)

Reference molecule: SEQIDNO:5, Region 1-1356
Number of sequences to align: 2
Settings: Similarity significance value cutoff: >= 60%

Summary of Percent Matches:

Reference:	SEQIDNO:5	1 - 1356	(1356 bps)	--
Sequence 2:	Kimura Tri101	135 - 1490	(1356 bps)	99%

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SEQIDNO:5          1 atggctttcaagatacagctcgacaccctcggccagctaccaggcctcctttcgatctac
Kimura Tri10     135 atggctttcaagatacagctcgacaccctcggccagctaccaggcctcctttcgatctac

SEQIDNO:5         61 acccaaatcagtctcctctaccccgtctctgattcctctcaatatcccactattgtcagc
Kimura Tri10     195 acccaaatcagtctcctctaccccgtctctgatccctctcaatatcccactattgtcagc

SEQIDNO:5        121 accttcgagcaaggtcttaagcgcttctccgaagccgtcccatgggtcgcaggccaggtc
Kimura Tri10     255 accttcgagcaaggtcttaagcgcttctccgaagccgtcccatgggtcgcaggccaggtc

SEQIDNO:5        181 aaagccgagggcattagcgagggaaacacaggaacttcctttatcgtccctttgaggac
Kimura Tri10     315 aaagccgagggcattagcgagggaaacacgggaacttcctttatcgtccctttgaggac

SEQIDNO:5        241 gttcctcgtgttgtagtgaaagacctccgcgatgatccttcagcgcccacgatcgagggt
Kimura Tri10     375 gttcctcgtgttgtagtgaaagacctccgcgatgatccttcagcgcccacgatcgagggt

SEQIDNO:5        301 atgagaaaggcgggataccctatggcgatgtttgacgagaacatcatcgcgccaaggaag
Kimura Tri10     435 atgagaaaggcgggataccctatggcgatgtttgacgagaacatcatcgcgccaaggaag

SEQIDNO:5        361 acgttacctattggacctggtactggtcccgacgacccaaagcctgtaattctattgcag
Kimura Tri10     495 acgttacctattggacctggtactggcccgacgacccaaagcctgtgattctattgcag

SEQIDNO:5        421 ctcaacttcatcaagggcggactcatcctcactgtcaacggacagcacggtgctatggat
Kimura Tri10     555 ctcaacttcatcaagggcggactcatcctcactgtcaacggacagcacggtgctatggat

SEQIDNO:5        481 atggtaggccaagatgcggtgatccgtctactctccaaggcgtgccgtaacgacccattc
Kimura Tri10     615 atggtaggccaagatgcggtgatccgtctactctccaaggcgtgccgtaacgacccattc

SEQIDNO:5        541 accgaagaggaaatgacggccatgaacctcgatcgcaagacgatagttccttaccttgaa
Kimura Tri10     675 accgaagaggaaatgacggccatgaacctcgatcgcaagacgatagttccttaccttgaa

SEQIDNO:5        601 aactatacgattggccccgaggtagatcatcagattgtcaaagctgatgtagctggtggt
Kimura Tri10     735 aactacacgattggccccgaggtagatcatcagattgtcaaacctgatgtagctggtggt

SEQIDNO:5        661 gacgctgttctcacgccggtcagtgcaagctgggcgttcttcacattcagccccaaggcc
Kimura Tri10     795 gacgctgttctcacgccggtcagtgcaagctgggcgttcttcaaattcagccccaaggcc

SEQIDNO:5        721 atgtcagagctcaaggatgctgctaccaagactcttgacgcatcaacaaagttcgtgtcg
Kimura Tri10     855 atgtcagagctcaaggatgctgctaccaagactcttgacgcatcaacaaagttcgtgtcg

SEQIDNO:5        781 actgacgatgctctttcggcgttcatctggaaatcggcctctcgcgtgcgtctcgaaaga
Kimura Tri10     915 actgacgatgctctttcggcgttcatctggaaatcggcctctcgcgtgcgtctcgaaaga

SEQIDNO:5        841 atcgatggctctgcacctaccgagttctgccgtgctgttgatgctcgaccggcaatgggt
Kimura Tri10     975 atcgatggctctgcacctaccgagttctgccgtgctgttgatgctcgaccggcaatgggt

SEQIDNO:5        901 gtctcgaacaactacccaggccttcttcaaaacatgacctaccacaactcgaccatcggc
Kimura Tri10    1035 gtctcgaacaactacccaggccttcttcaaaacatgacctaccacaactcgaccatcggc

SEQIDNO:5        961 gaaatcgccaacgagtcactcggcgcaacagcatcacgccttcgttcagaactcgacccc
Kimura Tri10    1095 gaaatcgccaacgagtcactcggcgcaacagcatcacgccttcgttcagaactcgacccc
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SEQIDNO:5       1021 gcgagcatgcgccagcgaacaagaggtctcgcgacgtacctgcacaacaaccccgacaag
Kimura Tri10    1155 gcgagcatgcgccagcgaacaagaggtctcgcgacgtacctgcacaacaaccccgacaag

SEQIDNO:5       1081 tccaacgtatccctgacggctgatgcggacccatctaccagcgtcatgctgagttcttgg
Kimura Tri10    1215 tccaacgtatctctgacggctgatgcggacccatctaccagcgtcatgctgagttcttgg

SEQIDNO:5       1141 gccaaggtgggactctgggattacgactttgggctcggactgggtaagcccgagactgtg
Kimura Tri10    1275 gccaaggtcggactctgggattacgactttgggttcggactgggtaagcccgagactgtg

SEQIDNO:5       1201 agacggccaatctttgagcctgttgagagcttgatgtactttatgcccaagaagcctgat
Kimura Tri10    1335 agacggccaatctttgagcctgttgagagcttgatgtactttatgcccaagaagcctgat

SEQIDNO:5       1261 ggcgagttctgtgcggcgctttctctgagggatgaggatatggaccgattgaaggcggat
Kimura Tri10    1395 ggcgagttctgtgcggcgctttctctgagggatgaggatatggaccgattgaaggcggat

SEQIDNO:5       1321 aaggagtggaccaagtatgcgcagtacgttggttag
Kimura Tri10    1455 aaggagtggaccaagtatgcgcagtacgttggttag
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Exhibit B

06 May 2005 Alignment Results

Alignment: Global Protein alignment against reference molecule
Parameters: Scoring matrix: BLOSUM 62

Reference molecule: SEQIDNO:6, Region 1-451
Number of sequences to align: 2
Settings: Similarity significance value cutoff: >= 60%

Summary of Percent Matches:
Reference: SEQIDNO:6 1 - 451 (451 aa) --
Sequence 2: Kimura Tri101 Pro 1 - 451 (451 aa) 99%

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SEQIDNO:6          1 mafkiqldtlgqlpgllsiytqisllypvsdssqyptivstfeqglkrfseavpwvagqv
Kimura Tri10       1 mafkiqldtlgqlpgllsiytqisllypvsdpsqyptivstfeqglkrfseavpwvagqv

SEQIDNO:6         61 kaegisegntgtsfivpfedvprvvvkdlrddpsaptiegmrkagypmamfdeniiaprk
Kimura Tri10      61 kaegisegntgtsfivpfedvprvvvkdlrddpsaptiegmrkagypmamfdeniiaprk

SEQIDNO:6        121 tlpigpgtgpddpkpvillqlnfikggliltvngqhgamdmvgqdavirllskacrndpf
Kimura Tri10     121 tlpigpgtgpddpkpvillqlnfikggliltvngqhgamdmvgqdavirllskacrndpf

SEQIDNO:6        181 teeemtamnldrktivpylenytigpevdhqivkadvaggdavltpvsaswafftfspka
Kimura Tri10     181 teeemtamnldrktivpylenytigpevdhqivkpdvaggdavltpvsaswaffkfspka

SEQIDNO:6        241 mselkdaatktldastkfvstddalsafiwksasrvrleridgsaptefcravdarpamg
Kimura Tri10     241 mselkdaatktldastkfvstddalsafiwksasrvrleridgsaptefcravdarpamg

SEQIDNO:6        301 vsnnypgllqnmtyhnstigeianeslgatasrlrseldpasmrqrtrglatylhnnpdk
Kimura Tri10     301 vsnnypgllqnmtyhnstigeianeslgatasrlrseldpasmrqrtrglatylhnnpdk

SEQIDNO:6        361 snvsltadadpstsvmlsswakvglwdydfglglgkpetvrrpifepveslmyfmpkkpd
Kimura Tri10     361 snvsltadadpstsvmlsswakvglwdydfgfglglgkpetvrrpifepveslmyfmpkkpd

SEQIDNO:6        421 gefcaalslrdedmdrlkadkewtkyaqyvg
Kimura Tri10     421 gefcaalslrdedmdrlkadkewtkyaqyvg
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